

LOUISIANA *Conservationist*

April
1958



Louisiana CONSERVATIONIST

EARL K. LONG
Governor of Louisiana



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Director

Published Monthly except May, June, July and August when
Bi-Monthly in the interest of conservation by Louisiana
Wild Life and Fisheries Commission

126 Civil Courts Building, New Orleans, La.

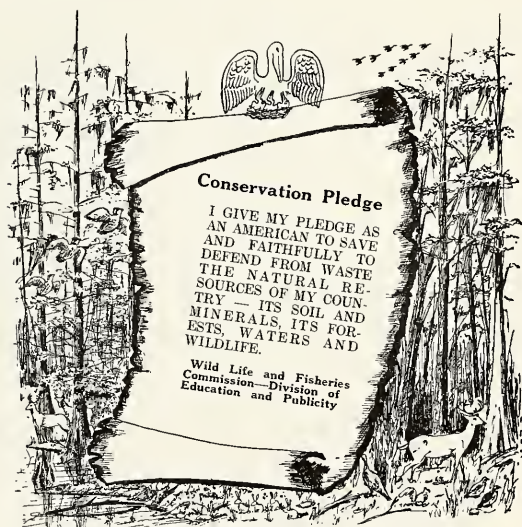
MEL WASHBURN, *Publisher*

STEVE HARMON, *Editor*

Vol. 10

April, 1958

No. 4



Entered as second class mail matter August 21, 1947, at the Post Office at New Orleans, La., under the act of August 24, 1912.

Member, Southwestern Association of Industrial Editors



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COVER

Louisiana youngsters are blessed with ample fishing waters both fresh and salt variety.

By F. LAMAR CLEMENT, Director

Louisiana Wild Life and Fisheries Commission

ENJOY THE chase . . . forget the kill! More and more sportsmen are learning that most of the fun of hunting and fishing is getting good fellows together and having a wonderful time in the outdoors. When this spirit prevails the kill becomes entirely secondary. The principal reason the Grand Isle Tarpon Rodeo has



F. LAMAR CLEMENT

become the amazing success it is year after year, is not because of the fact that great numbers of tarpon are caught. In fact very few tarpon are brought to boat during each of the three-day rodeos. But from its inception this piscatorial contest has engendered good fellowship, good sportsmanship and a massing of good fellows for a three-day contest during which the size of the kill is very much a secondary feature.

Unfortunately, some so-called sportsmen do not fall into this spirit of having fun. They are as indifferent in their attitude toward regulations of their sport as they are toward other regulations of law affecting their every-day existence. Some cheat a little here and there, others cheat a lot. Virtually everyone expresses himself as in favor of conservation, but few are at all sure just what they ARE for. Human nature being what it is, it very often takes either punishment, or at least

the threat of punishment to enforce a semblance of conservation. We have been selfish so long we have often been conservationists only when it served our interests.

Many of this country's hunters and fishermen deem themselves conservationists because they observe fish and game laws, prescribed seasons and bag limits and belong to sportsmen's clubs of one kind or another. Their idea of conservation appears to be living within the limits of the law rather than saving as much of our natural wildlife resources as possible. Too often they consider it a disgrace, or at least a shortcoming, if they do not return from the hunt with a bag limit regardless of whether or not they have use for a bag limit of any specie of game. At the same time great numbers of these so-called conservationists give no thought to the perpetuation of the wildlife that affords them so much outdoor pleasure other than the lip service they exercise at the various meetings. The true meaning of conservation doesn't seem to enter into their thinking.

Conservation isn't improved habitat for wildlife; it isn't restocking; it isn't predator control; it isn't pollution control; it isn't better agriculture, and it isn't merely the wise use of our natural resources for making goods. It isn't any one of these things . . . it's all of these things. It's not the parts . . . it's the whole.

Unless we can see the whole picture, and see it right now, we might as well forget conservation, because we don't know the meaning of the word. Proved conservation methods in use today would have been ridiculed loudly a half century ago. There was game then in any amount for everyone to shoot as much as he wanted. But as is usually the case when no curb is put on any activity, virtually everyone shot more than he wanted, more than he needed. As the years went on there was a gradual thinning of the game supply, but the hunting was still good. Finally, however, some began to take stock of this country's fish and game supply and the totals they arrived at were stunning.

For a time publications devoted solely to fishing and hunting refused to accept or mention the fact that our game supply was threatened, but after a time outdoors editors began to develop a conscience, and an awareness of facts. Since then they have joined wholeheartedly in the preaching of conservation and the teaching of good sportsmanship.

Today we are at the crossroads. Sportsmen, businessmen, professional men, farmers and politicians are all for conservation but they have diverse viewpoints. They are all for it but they can't agree as to what it is. But we must all agree that we have been selfish too long, and that real conservation means the greatest good for the most people.



A view of floating shad following selective fish poisoning on Bayou DeSiard near Monroe in Ouachita Parish.

Selective Poisoning For Shad

By Don Geagan

Fisheries Biologist

As strange as it may seem, frequently the reason for poor fishing in our fresh waters is too many fish. That is, the wrong kind of fish, with the most commonly too abundant species being the gizzard shad. Also occurring at times in large enough quantities to be a problem is the smaller relative of the gizzard shad, the threadfin shad.

To a statement such as has been made above, the answer is usually given, "how can you have too many fish?" Well, it must be remembered that a body of water is capable of producing only a given amount of fish. This total production of the fish population is different for various bodies of water and is dependent upon the amount of basic nutrients which the body of water has available, indirectly, for the fish population. Therefore it follows that if a body of water can only produce so many fish and the more of these fish that are rough or trash fish then the smaller the amount of desirable fish which may be produced.

Since the shad are the most frequently encountered trash species creating a problem in being too abundant, we are fortunate in that they may be easily controlled. This type of control is referred to as selective poisoning. The chemical used for this procedure is known as rotenone. While this chemical is toxic to all species of fish it requires a much lesser amount to affect shad. For the lethal concentration needed to kill all species it is considered that 0.5 to 1.0 part

per million of 5% rotenone is adequate. For the destruction of shad a concentration of 0.1 part per million of 5% rotenone is sufficient. It can be seen from these figures that by carefully calculating the volume of water in a lake or impoundment it is possible to apply only enough rotenone to kill shad and yet not enough to kill game species.

This procedure is not quite as simple as it may seem from the foregoing explanation. Even though it takes only one fifth as much rotenone to kill shad as it does game fish it is rather touchy task to evenly apply this concentration without having lethal amounts of toxicants strong enough to kill game fish piling up in areas. First in making sure this doesn't happen, it is necessary that a complete knowledge be had of the area of the body of water being treated and also the depths in various sections. This is very important since in shallow or narrow sections of the lake correspondingly smaller quantities of rotenone area than in wider or deeper sections.

After the proper amount of chemical is determined and the morphometry of the lake known, it is necessary that the men making the actual application know their job. This application is made from a barge with one man running the outboard motor and two men spraying a solution of rotenone with the aid of two power pumps. In all, close team work is needed among these men and the men in the boats fol-

lowing the barge who churn the water to break the surface film of chemical which frequently develops. If this surface film of chemical is not broken and the rotenone aided in getting below the surface, the kill of shad is incomplete and there is danger of the wind piling up the toxicant in too great concentration along the bank.

Considering the problems associated with attaining an even application of rotenone it is evident that even after the most careful plans are made and all the necessary precautions are undertaken there is always the possibility of a lethal concentration building up for game fish. However, it is felt that the few game fish which may unavoidably be killed are more than compensated for by the benefit derived from the reduction in the shad population.

When a lake has been recommended for selective poisoning, it is always planned that the program be undertaken for at least three years as continued studies show this to be necessary. Also the time of the year which has been selected is in the late summer or early fall. There are several reasons for this particular time being the preferred among which is the fact that there is less chance of a spawning of these adult shad after the poisoning. Next this diminished population of shad provides a much smaller brood stock for the following spring and those young which are spawned the following year are of available size as forage for game fish. By late summer this new population of shad has then begun to attain a size too large to be utilized by the predacious species and it is then time for the succeeding selective poisoning.

Another reason for picking this time of the year is that the water has not cooled off sufficiently to affect the toxicant, which is seriously affected by low temperatures, yet it has cooled enough to keep down somewhat the undesirable odor which is associated with several thousand pounds of dead shad. This is a very important consideration since a great many of our lakes have numerous inhabitants along their banks.

Now that we have discussed why selective poisoning for shad is beneficial and some of the difficulties associated with it, let's briefly go into how a body of water is decided upon as needing such a project.

First as part of a Dingell-Johnson Project known as F-IR under the supervision of Victor Lambou and from research sampling by the Lake Management Research Project, considerable information has been obtained about the fish popu-



A Louisiana Wild Life and Fisheries Commission employee nets boatload of shad after a successful kill on Bayou DeSiard.

lations of many of our lakes. Secondly, samples of fish populations of public waters are taken by the Lake Management Project personnel upon the request of Police Juries, sportsmen's groups, civic organizations and individuals. The results of such sampling points up the unbalanced population which is caused by too great a production of shad.

When a request is received from a group or individual such as described in the preceding paragraph, the body of water in question is sampled as soon as our very crowded schedule permits. Depending on the size and type of body of water samples are collected either by seining or by poisoning one or more one-acre areas. The fish collected in such samples are then identified, enumerated, measured, weighed and recorded. These results along with whatever management program which is recommended are forwarded to the parties interested in the body of water.

I would like to point out here that not all bodies of water have problems which may be solved or improved upon by selective poisoning. That is why it is first necessary that the composition of the fish population under question be known as accurately as sampling methods will permit in order that it be determined if there is a population balance problem and if so what steps should be undertaken to correct same. As examples of other types of unbalanced populations, it is often encountered that two large a population of commercial species are present or possibly a large population of stunted sunfish may be the problem. Therefore, while selective poisoning is a very beneficial and important fish management tool it is only effective in cases where the problem is one of too great a shad population.

When the samples taken do show a need for selective



A fishery biologist is shown mapping lake prior to selective poisoning.

(Continued on Page 18)

New Marine Research Lab



Among those present at the opening ceremonies of Pascagoula's new Fisheries Technology Laboratory were, left to right, Ross Leffler, Assistant Secretary for Fish and Wildlife for the Department of the Interior, Washington, D. C.; A. W. Anderson, Assistant Director of the Bureau of Commercial Fisheries, Washington, D. C.; Harvey R. Bullis, Jr., Director of the laboratory and Percy Viosca, biologist for the Louisiana Wild Life and Fisheries commission.

FORMAL ceremonies at Pascagoula's \$250,000 Fisheries Laboratory of the United States Fish and Wildlife Service marked the dedication of the new building which will be a center of marine research in the Gulf of Mexico. Principal speaker and guest of honor was Ross A. Leffler, newly created assistant secretary of the Interior for fish and wildlife.

The new building which was officially christened "The United States Fish and Wildlife Service Bureau of Commercial Fisheries Gulf Fisheries Exploration and Gear Research Pascagoula Fishery Laboratory," houses laboratories and offices for exploration and technological work. Two vessels, the Oregon and the Silver Bay, are also used to discover new fish resources and to develop improvements for gear used by commercial fisheries.

The laboratory is housed in a new brick building at the City docks at Pascagoula, Miss. The building is shared with the Gulf Exploratory and Gear Research section which operates the two vessels from facilities on the city dock. This joint operation will be most efficient, Leffler said, in that samples for technological study will be readily obtained from these ships.

"The basic purpose of this laboratory is to assist the commercial fishing industry in solving technical problems in the processing of marine products, in developing new products, and suggesting new uses for products now in production," Leffler said.

"To do these things, we may use pure laboratory, or practical canning methods, or we may find solutions from the study of publications of previous work done at other technological laboratories. Research development in this new laboratory is for the aid of the commercial fishing area in the Gulf of Mexico. Thus our projects are being laid out on a long range basis, looking to the future of this area."

"Through close cooperation with the Gulf States Marine Fisheries Commission, our programs have been, and are continuing to be mapped out to explore systematically the commercial fishing potentials of the Gulf. Operation of the Oregon on this pattern, along with the knowledge of our professional staff managing the programs, has led to what we believe to be significantly successful results. These results have made possible the tapping of several latent fishery resources and will lead to discovery of many more in this productive body of water touching your own doorstep on the Gulf Coast."

"You need only to look out the windows of this very building to see the large pet food canning plant that has merged in this city by virtue of knowledge gained on the availability of certain species of Gulf fish for this product."

"Hitherto unknown stocks of tuna have been found in the off-shore subsurface waters of the Gulf. Their availability for commercial use on a year-round basis has been clearly demonstrated. Some new grounds for shrimp production have been found in various parts of the Gulf over the course of several years exploration. Some species of shrimp found in rather substantial quantities were previously known only through a few museum specimens. At present, the Oregon is being used to assess the commercial possibilities of herring and sardine-like fishes in the surface and mid-water layers of the Gulf. Many entirely new species of fish and shellfish have been discovered but as yet we are not even certain that the potential of this vast body of water has been more than barely touched."

"The technological facilities encompassed in the new Pascagoula fisheries station are the first of their kind to be provided by the Federal government for the southern fisheries. By our definition, technological research facilities are the

chemistry, bacteriology, experimental freezing and canning laboratories located in the center part of this building. These are the tools which will be used to find the answers to many problems in improving the methods of processing fishery products, their quality and sanitation. Many of these current problems stem from the change in consumer demands for new types of fishery products such as frozen, precooked, and pan-ready seafood items.

Improved techniques will be sought in the handling of fish aboard vessels, so as to insure top quality deliveries as vessels traverse longer and longer distances in the Gulf to reach the good fishing grounds. Quality control and assurance of uniform high quality of fishery products can be aided by development and establishment of Federal voluntary grade standards. These, among others, are the types of activities which will be pursued in the course of the Technological Research program. We hope that after a few years of operation, we will be able to report as much success in this work as we have been able to outline today on exploration and development of the fisheries in the Gulf.

"Beyond this, there are serious marketing problems which need attention and to which our market development specialists and promotional staff at this station address themselves. As an adjunct to these activities, home economists will be working in the modern test kitchen in this building to develop the best means of preparing Gulf seafoods and demonstrating to institutional groups and school lunch managers the nutritional benefits of including fishery products on their menus.

"We dedicate ourselves to the task of solving the nation's fishing problems by getting at the very root of those problems. By insuring an abundance of a high quality, attractively prepared seafood, our industry can compete with anybody. The final solution to our problem is to convince the people of our country that fish at any meal at any time is good and thereby increase the demand and market for our products. This is the problem that faces our industry today.

"My sincerest hopes are for great growth and prosperity to the fishing industry of the Gulf States," Leffler said.

The new building houses a chemistry laboratory and is equipped with many of the most modern instruments for analysis; a delicate instrument room for balances, microscopes, spectronic colorimeters and various other instruments all of which have rubber mountings to eliminate vibration and



You can't tell by the picture that the temperature was exactly zero when Travis Love, staff chief at the Pascagoula fisheries laboratory and Mrs. M. T. Thompson, chemist, inspected these tuna and red snappers in one of the new plant's five experimental freezing rooms.

static; a bacteriology laboratory; a pilot canning plant; a five-room experimental freezing plant, also automatic sterilizers and incubators for the use in study of frozen and canned foods.

The scarcity and high prices of shrimp and oysters for canning have caused a need for other products to be developed for canning, according to Harvey R. Bullis, Jr., Director of the laboratory. The experiments already underway include the development of a canned product from the stocks of Gulf anchovies and sardine-like fishes. Preliminary work on this project has begun and a small pilot canning operation has resulted in anchovy in tomato sauce and anchovy in mustard sauce, which have good possibilities. Taste panel acceptance on the few cans packed was good, Bullis said.

Another pilot canning operation is a product from the large stocks of Gulf mullet which has produced a delicacy in tomato sauce which is appealing in taste and appearance. "Besides these," Bullis said, "experimental work has been going on for greater utilization of trash fish for animal food and these may not necessarily have to be canned products.

"Additional studies in canning tuna are underway, especially the uses of the trimmed-off dark meat. Attempts have been made to prepare cooked canned foods from this highly edible portion of the tuna. A smoked tuna paste spread has been prepared by a local canner which has good taste appeal, Bullis said.

"Work is also being done in the freezing of seafoods which will enable the laboratory to give technical advice to industry on a wide variety of specie and products. Some of the projects being considered are, freezing or fish fillets from the Gulf, both breaded, raw or cooked; freezing precooked seafoods such as gumbo and casserole dishes; studies on freezing raw oysters with attention to storage and discoloration; studies of the technical aspects of freezing fish or pasteurized



Ross Leffler, U. S. Assistant Secretary of Fish and Wildlife, left, inspects fish specimens to be used in experiments at Pascagoula's new laboratory. With Leffler is Harvey R. Bullis, Jr., director of the laboratory.

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Three past presidents of the Grand Isle Tarpon Rodeo association and currently active in the promotion of this annual event. Left to right, they are: Dr. Don Peterson, Urban S. Wilkinson, general chairman, and Judge Walter B. Hamlin, immediate past president.

Grand Isle Tarpon Rodeo

—July 17-18-19—

By Mel Washburn

ACCORDING to the officials of the Grand Isle Tarpon Rodeo association, the 1958 renewal of this internationally famous fishing contest, to be held at Grand Isle, July 17, 18 and 19, bids fair to break the 2,000-mark in registered fishermen for the first time in the history of this colorful event. The reason for this belief, P. J. McMahon, president, and Urban C. Wilkinson, general chairman, base on the greatly increased numbers of inquiries from all over Louisiana and from virtually every state in the Union regarding rodeo dates, fishing accommodations and classes of fish included in the prize categories.

Rodeo officials have started earlier than usual this year perfecting final plans for this year's contest and hope to offer an even better one than in past years. Rodeo headquarters which will again be at Fisherman's Wharf, at the mouth of Bayou Rigaud, will be set up in a more convenient arrangement for the display of prizes, for the registration of entrants, for the weighing station and ample and all inclusive information. The Terrebonne brothers, operators of Fisherman's Wharf, will again provide a shrimp and crab boil for all rodeo visitors on the Wednesday night preceding the opening of the rodeo on Thursday morning, and they are

enlarging their facilities for the convenience of the rodeo fleet and the individual fisherman.

Even the prize list has been augmented. There will, of course, be a new 1958 Ford automobile as the capital prize. In addition to this there will be a new speed hull and outboard motor as an entrance prize, as well as three speed hulls to be awarded, one each day of the rodeo proper. As in the past, there will be a top prize of an outboard motor for the winner in each of the fish categories. Added to these prizes will be approximately \$10,000 worth of merchandise prizes running the gamut of fishing gear, boat accessories, deep freezers, television sets, etc. Henry Herr, new chairman of the prize committee, predicts that this year's prize awards will be the greatest ever offered in a contest of this kind.

With the guidance of General Chairman Wilkinson, assisted by past presidents Dr. Don Peterson, Frank A. von der Haar, Judge Walter B. Hamlin and others, the annual birthday party at Lafitte, which has always been the pre-rodeo celebration, will again serve as a reunion of veteran rodeo participants, and the annual cutting of the birthday cake will be the highlight before the rodeo fleet sets sail at noon on July 16 for rodeo headquarters at Grand Isle. When the gaily decorated craft in this rodeo fleet arrive at Grand Isle they will be joined by a similar fleet of fishermen from Golden Meadow and the big party will be on.

The rodeo will officially open at dawn on Thursday morning, July 17, and from that moment until six o'clock Saturday evening, July 19, it will be every man and woman for themselves as far as fishing luck and ability is concerned.

According to President McMahon, the only two things

that can't be provided for this year, are the weather and the disposition of the fish. At the same time, however, he has fortified himself with information from his 1958 almanac and contends that predictions for the rodeo dates are favorable for fishing.

The rodeo caps this year will be a golden colored corduroy of fine texture and the cap committee has ordered in accordance with the prediction for a record-breaking crowd.

Special attention is being paid this year to the prize award ceremonies at the conclusion of the rodeo, and the arrangement for smooth prize disposition as well as for a completely efficient amplification installation have been made so that the many thousands in attendance will be able to both see and hear the presentations which will include one of the most beautiful array of trophies to the winners in the tarpon class. Each year, due to the addition of memorial awards, this feature of the final night ceremonies has a sentimental as well as sports value.

Sheriff William S. Coci and his Chief Deputy, James Arnoult, have indicated that Jefferson Parish officials will go all out in cooperation for the rodeo's success. In addition to a score or more of deputy sheriffs to patrol the island, both day and night, Sheriff Coci has said that he will provide air transportation facilities for the press, radio and TV representatives so that they may get their news and films back to New Orleans each evening in time to meet their deadline.

The business men and women at Grand Isle have of recent years become active in the rodeo promotion and have already organized their corps and promise complete cooperation with the rodeo officials. They, too, predict a record-breaking rodeo



Sheriff William S. Coci, of Jefferson Parish, speaking at the annual Grand Isle Tarpon Rodeo association banquet and pledging the full cooperation of the Jefferson Parish authorities for this year's rodeo.



P. J. (Jim) McMahon, president of the Grand Isle Tarpon Rodeo association, and one of the "founding fathers" of this internationally famous fishing contest.



Three veterans of the Grand Isle Tarpon Rodeo association listening to U. S. Judge Herbert J. Christenberry at the annual rodeo association banquet. Left to right, they are: Charles Maniscalco, Frank A. von der Haar, Judge Christenberry and Louis Maniscalco.

this year, basing their contention on the unusually heavy demand for rodeo accommodations from every part of the nation.

Started in 1928 by a mere handful of hardy fishermen, the Grand Isle Tarpon Rodeo has grown with the years and, as is true in all phases of human existence, the hails of goodfellowship and the examples of good sportsmanship on which this event was founded, have, of recent years, also had occasions of deepest sorrow. This last year alone has recorded the passing of three highly prominent sportsmen in rodeo annals; Dr. Henry LaRocca, Harry J. Bonck and Walker Saussy. All three of these men had for many years been prominently identified with rodeo activities and two of them had been elevated to top offices in the official family. Harry Bonck was a past president and had for a score of years been chairman of the rules committee; his brother Lucien Bonck succeeds him in that office. At the annual rodeo banquet in late February, Walker Saussy was elected to the presidency but passed on before he could more than formulate primary plans for this year's rodeo. For many years Mr. McMahon had been 1st Vice-president of the or-



The late Walker Saussy, who was elected president of the Grand Isle Tarpon Rodeo association for 1958, presenting a plaque to Judge Walter B. Hamlin, retiring president, at the rodeo dinner.

ganization but had consistently refused to be elevated to the higher office. With the passing of Mr. Saussy, however, Mr. McMahon consented to accept the presidency and, since he is one of the original founders of the rodeo, added impetus has been engendered to make this year's contest the outstanding one to date. President McMahon was the rodeo winner in 1937 and he has placed all other contestants on notice that he will try for the championship again this year.

NEW MARINE

(Continued from Page 3)

crabmeat and studies on freezing raw, ready-to-cook shrimp.

"Basic chemical research will also be an important function of the laboratory such as the composition of the food fish of the Gulf, the composition of oysters, the chemistry of industrial fisheries decomposition and identification methods and the bacteriology of fishery products.

"The long-range program for the Gulf of Mexico area laboratory is one of product development and sanitary studies for the present. During the years to come, technical production matters and more advanced chemical research will be entered upon. It is extremely necessary that all facets of the industry make suggestions and recommendations for research needed as soon as possible. We extend a welcome to visitors and to letters of inquiry at our Pascagoula laboratory," Bullis said.

Among the many local and state officials present, at the speakers' table besides Leffler and Bullis were: Dudley Gunn, Secretary of the Gulf States Marine Fisheries commission; Henry Maddox, Executive Secretary of the State Agriculture and Industrial board; A. W. Anderson, Assistant Director of the Bureau of Commercial Fisheries, Washington, D. C.; Hermes Gautier, President of the Pascagoula Chamber of Commerce; Fred Moran, President of the Board of Supervisors of Jackson County, Miss.; Frank Canty, Mayor of Pascagoula; and, Monsignor Carey, who gave the Invocation.

Breeding grounds of the now-scarce trumpeter swan once ranged from Alaska to Nebraska and Missouri, and the birds migrated in winter as far south as the Gulf Coast and Southern California.

ATTENTION

LOUISIANA BAIT DEALERS

The Fisheries Section of the Wild Life and Fisheries Commission is attempting to compile a directory of bait dealers and minnow growers throughout the state. This office frequently receives requests for information pertaining to the location and type of baits handled by such establishments, and a current directory would certainly be advantageous to all concerned.

We are therefore requesting that all bait dealers and minnow growers complete the following questionnaire and return it to us at your earliest convenience. Replies should be directed to Mr. Harry E. Schafer, Jr., Wild Life and Fisheries Commission, 126 Civil Courts Building, New Orleans, Louisiana.

Your cooperation will be greatly appreciated by this office.

NAME:

ADDRESS:

PHONE NUMBER:

(Please check)

() Retail Bait Dealer

(Type of bait handled)

() Minnows, Types

() Worms, Types

() Shrimp, Types

() Others, Types

() Wholesale Bait Dealer

(Type of bait handled)

() Minnows, Types

() Worms, Types

() Shrimp, Types

() Others, Types

() Minnow Grower

List species of minnows grown

TURKEY

SEASON, 1958

By W. C. Goins

Although showing a 10% decline in total birds killed when compared to last year's take, the 1958 turkey hunting season in Louisiana was one in which many hunters took part.

The five-day season, which began March 29, was opened in three separate areas of the state. One area included parts of Tensas, Madison and Franklin parishes; another was made up of areas in East Feliciana, East Baton Rouge, St. Helena, and Livingston parishes; and still another included St. Tammany parish and the greater part of Washington.

Reports from each of the two larger areas were reversed from the results of last year. Total birds taken in the areas of St. Helena and East Feliciana parishes showed a considerable drop. Heavy rains and bad weather conditions prevailed during the first two days of the season in this area and this hampered hunting to a great extent.

The take from Washington and St. Tammany parishes was only six gobblers.

Check stations were set up throughout all three areas and were manned by game biologists and game agents in an effort to gather information which would include the total take in all areas and also information that would be of some value from a biological standpoint.

The area which included Tensas, Madison and Franklin parishes is in District IV, and according to a report by the district supervisor, Dewey Wills, the overall season can be termed successful.

"In my opinion, from the reports received from a variety of sources," Wills said, "this season can be classified as the best of all previous seasons for this district. With the cooperation received from the biologists who worked in this area we were able to make at least a 95% coverage."

"Reports received indicated that 'the woods are full of turkeys' and it is believed that the turkey population is on the increase."

"Despite the bad weather on the opening days of the season, hunting success in the area was good. As of April 2, a total of 50 birds had been killed, 28 of which were checked by game biologists. Twenty-two other known kills were reported based on observations by game agents, refuge wardens and hunters. Some of these included checking of beards or feet taken from the turkeys killed."

"The take by parishes in District IV was as follows: Tensas, 14; Madison, 34; and Franklin, 2."

"Of the 28 birds checked, the largest weighed in at 26 pounds and had a wing-spread of 59 inches. The smallest checked weighed 11 pounds and the wing-spread was 48 inches."

"Check station locations were good with the exception of those at Waverly and Lake One. Most, if not all, of the hunting camps were checked by game biologists and hunters were very cooperative in reporting their kills."

"From conversations with hunters at the check stations and hunting camps, most of them either saw or heard turkeys and it is their belief that the turkey population is increasing."

"In comparing the last three hunting seasons, 1958 was the most successful. During 1956 only 65 birds were reported killed throughout the state; in 1957, 31 birds were killed in



W. C. Crawford of Rayville is shown with a 23 pound field dressed gobbler he bagged in the palmetto ridges of Madison Parish.

District IV (Franklin, 5; Tensas, 8; and Madison, 18). The only parish showing a decrease in hunter kill was Franklin."

Kenneth Smith, Supervisor of District VII reported the season did not go as well with the hunters in the Florida parishes as did the season in '57. Many hunters were heard complaining about bad weather for turkey hunting as well as the fact that the males were not gobbling as much as would normally be expected at that time of the year. There is no doubt that unseasonably bad weather adversely influenced mating activities which in turn, severely affected hunter-success.

"In comparing figures over the past two seasons," said Smith, "we find there were 67 reported kills on gobblers in the Florida parishes last year and only 40 this year, a 41% drop. Though no accurate figures are available to indicate how many hunters were in the woods, it was the general opinion of the people at the check station that there were fewer this year than last."

"A breakdown of kill data shows that in District VII the majority of turkeys were killed in St. Helena parish, with 22 birds taken there. Only six were reported from Livingston, five from East Feliciana, which reported 23 last year, five from St. Tammany and one from Washington."

"Of the known ages (distinguishing mature from immature) of 29 birds, 20 were mature and nine were immature. Average weights ran about the same as last year, 12 lbs. for immatures and 16½ for matures."

"Five check stations at strategic cross roads were employed the first two days of the season and four stations were in use during the last three. A somewhat better coverage was made over last year but due to the many all-weather roads throughout the big timbered areas it is impossible to check all kills made during the season."

In summing up the turkey situation John Newsom, federal aid coordinator said; "In view of the fact that all available information indicates that legal hunting for gobblers only has little or no effect on potential turkey populations, it is felt that the Louisiana Wild Life and Fisheries commission should give serious thought to longer and later Spring turkey seasons in the future."



J. C. Martin of Tallulah and A. L. McKinney of Delhi, above, with 26 pound gobbler.



W. N. Brumfield of Kentwood



Percy Alleman of Norco



Nelson Hinson of Holden



Curtis Jones, Thomas Amme, and Paul Jones, all of Denham Springs

Successful Hunters In 1958



Lewis A. Lachin of New Orleans



Calvin Trichell of Tallulah

Season



Kerney Sibley of Corbin



Sammie Forbes of Baton Rouge



Representative Shelby Alford of St. Helena and Senator Bill Cleveland of Crowley.

Wildlife of Yesteryear



By Ednard Waldo

AS DEAD as a 'dodo' . . . this apropos phrase, used casually millions of times by people the world over to express the futility of resurrecting the irrevocable past . . . has a meaning in conservation more far reaching than a mere cliché. In reality this animal actually existed in great numbers on our earth a scant two hundred and fifty years ago and was well known to many of our seafaring ancestors.

The dodo was a mild, harmless creature fearless of man and edible and it was perhaps, these latter two characteristics that led to its extinction. It was a large, portly bird, about the size of a swan and another of its main handicaps was its inability to fly like other birds to escape from man and predators he imported to its native island of Mauritius east of Madagascar in the Indian Ocean. In lieu of wings it had only a few blackish feathers and its tail was a tuft of grey feathers and although it laid but a single white egg per hatching, on a clump of grass in the forests, its population was enormous.

When Vasco da Gama, the Portuguese navigator and colonizer, first discovered Mauritius in the early fifteen hundreds the bird was not considered edible by his men who explored the island and it was probably the irascible da Gama who named it the "dodo" which is the Portuguese for *silly*. Vasco undoubtedly didn't think much of a silly bird that had absolutely no fear of his sailors.

However, the less fastidious seafarers who followed in da Gama's footsteps found the bird very palatable and from 1601 to 1664 dodos were slaughtered wholesale by passing

mariners in search of food and eaten fresh or salted to augment the ships' provisions.

When the island was colonized, dogs and pigs and other domestic animals were imported and it was they who completed the destruction of the young of the dodo and its eggs. So complete was the eradication that by the year 1712 the inhabitants of the island, which lies just north of the Tropic of Capricorn, had even forgotten that the animal had even ever existed. Today the only relics of the bird are the head and foot of a stuffed specimen at Oxford University and some drawings preserved in museums and some skeletons. So—practically all that remains to be remembered of this once populous bird is the expression "dead as a 'dodo'".

But the odd-looking dodo bird, with its singular hood of bare skin covering its head, is not alone among the wildlife species that have gone to their Valhalla within the memory of man and recorded history. From the year Our Lord was born up to the year 1800, thirty-three wildlife species were wiped from the face of the earth. During the ensuing 100 years, thirty-three more species joined them and in the first half of our own twentieth century, forty more have gone to oblivion.

A companion in misfortune to the dodo was the great auk, also a large bird . . . much bigger than the now surviving species of auk. Its wings were short stumps; it was dark backed, white bellied, brown-throated and it had a black beak and white circles around the eyes. Its undoing was partly due to fact that it only laid one egg a year; a greenish-

grey one covered by an irregular pattern of black and brown blotches. Even so, it could have survived had it been exploited with some restraint, but it had already become rare by the beginning of the nineteenth century.

In his diary Jacques Cartier tells of a voyage to "The Island of Birds" (Funk Island) to procure some of the birds "whose numbers are so great as to be incredible unless one has seen them," Cartier was referring to the Great Auk, a strange flightless unresisting bird which was present on the island in great colonies.

Nesting on cliffs in Iceland, the Faroes and the Hebrides, the Great Auk was hunted for its skin, oils and fat and the demand for its eggs made its decimation inevitable. Today collectors will pay as much as fifteen hundred dollars for an auk specimen egg.

The Great Auk is now a bird of history and museums only. It met its final fate in the new world on Funk Island, a treeless dot in the sea, about thirty miles northwest of Newfoundland, which was the first land the auks met with as they swam southward on their annual migrations. Unable to fly, it was anyone's prey.

The countless great auks that visited Funk Island naturally attracted men who wished to exploit and turn them to account. Whalers landed their crews there and left them to kill the incoming birds and secure their feathers.

The birds were either driven into pens and slaughtered there, or else the pens were used to contain their dead bodies. Apparently great numbers of their bodies were used for their oil and fat.

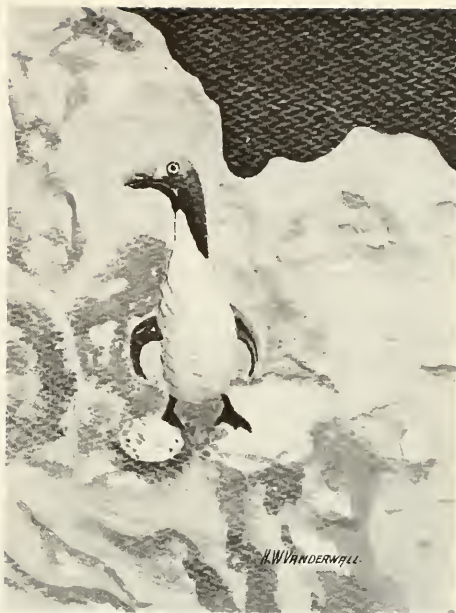
Between 1500 and 1750 almost all of the Great Auk populations were wiped out. To add to this the soft breast plumage of the eider ducks had become valuable by that time and the eider hunters found that the auk's plumage was similar to the eider and also an acceptable substitute so the auk hunt-down received an added impetus. About the year 1840 the species in the new world became entirely extinct. With the disappearance of the Great Auk on the American continental shores, the demand for auk skins increased fantastically and such high prices were paid that the last pair existing in the old world, who were living on a small volcanic rock called Edley's Island, were exterminated on June 4, 1844 by a party of feather hunters.

When Funk Island was visited by F. A. Lucas in 1887, in quest of remains he found deposits of bones several feet in thickness, evidently where the bodies of the slaughtered birds had been heaped up and left to decay. Out of these deposits, several barrels of mixed bones and peaty earth were taken which yielded some complete specimens of that species.

Until the latter years of the nineteenth century, the beautiful passenger pigeon, native of the American continent, was famous for its migrations. Christopher Columbus turned from his charts to note and marvel at the hosts of birds which actually darkened the sun. In the forests the birds alighted in such numbers that tree branches collapsed under their weight.

Between sixteen and seventeen inches long, the bird had grey coloring with a red lustre and varying shades of blue on its back. Like the auk and the dodo the passenger pigeons were killed by wholesale methods. While breeding they were attacked and slaughtered in their nesting places and in an incredibly short time the great flocks vanished. The last known passenger pigeon died in the Cincinnati zoological gardens in 1914. Some have blamed its extinction on excessive hunting and outright slaughter; others claim a virulent disease was the cause. Still another group of die hards hold that somewhere on this earth there must be a remnant of these incredibly numerous birds whose flocks not only darkened the skies but also took days to pass.

The fate of the passenger pigeon is another example of the destruction of a species, thought because of its numbers, to be entirely safe from any danger of extinction. In Louisiana the last of the passenger pigeons were observed in the winter



The great auk, now extinct, was a fairly recent inhabitant of this earth. It was exterminated by hunters seeking its valuable feathers.

of 1903-4 at Prairie Mer Rouge by the well known hunters B. V. Lilly and I. H. Alford. None have been reported there since then.

Another fairly recent animal which undoubtedly was the victim of the hunters was the quagga, a kind of brown and dark red zebra, with striped head and neck and white legs and tail. It lived in the southeastern part of Cape province in South Africa where the naturalist Burchell came across great herds in 1812. The Boers hunted it for sport and also for food. Between 1858 and 1878 the animals prized for their meat and for their hides, became increasingly rare. By the end of the nineteenth century not one was left alive. A few stuffed specimens still exist in museums.

Down the centuries belief in the existence of mermaids has been so strong that instances of their capture have been recorded as fact. As we know, mermaids or sirens only lived in legend or imagination of poets. There were and are, however, various kinds of aquatic mammals which might have been mistaken for the semi-human beings of folklore. One of these was Steller's rhytina, belonging to the order of the *Sirenia* and called, unromantically, "Steller's Sea Cow".

As much as 24 feet in length, with a small head on a rather heavy, dark brown, sometimes white-spotted or white-striped body, it made its home in the islands along the east coast of Kamchatka, Bering Island and Copper Island. Slow, defenseless, trusting . . . and edible . . . it represented an ideal prey! Naturalists, Steller, (1741) discovered it and then in his wake came sailors, who landed in the islands slaughtering and exterminating the animals with incredible rapidity. Some men spent eight or nine months on these shores collecting provisions for the rest of their voyage.

Within nine years not a single rhytina remained in Copper Island. After 1763 ships came more rarely to Bering Island, no doubt because the stock of meat was running out; the few animals left were not worth the voyage. The species



The quagga was among the many animals that have been hunted to extinction. A zebra-like creature, the quagga was valuable for its meat and hide. Now only a few specimens are found in museums.

became extinct at the end of the eighteenth or the beginning of the 19th century.

The story could go on and on. All too often it is only when a species is in an almost hopeless state, when there is barely a handful of survivors, that measures are taken to save it from extinction, through the creation of sanctuaries and the strict control of hunting. Sometimes it is already too late, and nature has suffered an irreparable loss. Hundreds of wild species were hunted and trapped mercilessly until game regulations, international treaties, and other laws stopped the carnage and controlled the killing.

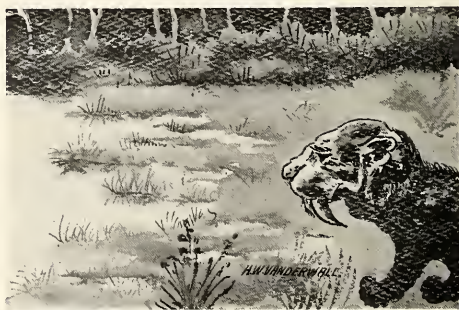
In 1900 the Whooping Crane was with us, we thought, forever. No one ever gave thought to the fact that a few short years later it would almost reach the point of no return. Man, predators, hurricanes and tornadoes brought his most stately of American birds almost to extinction until, through rigid restrictions and constant vigilance it may be making a comeback. Today the observations, know how, education and resources of practically a small army of advisors and experts has been called upon to aid the one pair in captivity at the Audubon park zoo in New Orleans, in raising the first birds of this species ever successfully produced with the guidance of man. There are now about thirty of these beautiful birds remaining in the world. Like the whooping crane the magnificent trumpeter swan is threatened with extinction, this is of course pretty well known to most persons interested in wildlife matters, however, most of us do not know that there are scores of lesser known species that are likewise threatened with oblivion.

However, all of this cannot be blamed on man's callousness and carelessness alone. Changes in the world's wildlife populations have been going on since the world began. Many

species, affected by changes and climate and the domination of more virile predators became extinct long before man is known to have appeared on earth. And many other species have disappeared through the causes of nature itself.

A typical example of the aforementioned is the saber-toothed tiger. Fossil remains of this saber-toothed animal which is said to have been a wanton killer and the most ferocious beast ever to inhabit the earth, have been uncovered in geological strata which indicate that the mammals lived in the old

(Continued on Page 18)



The saber-toothed tiger was one of the animals that was not eradicated by man. This animal's saber-like fangs grew so long that he could not defend himself or take large quantities of food and eventually degenerated and died out.

ALL ABOUT WIVES

By Frank Stout

Sh-sh-sh! Brother angler, don't let the little woman see this. Here are compiled, for your handy reference, the most ingenious dodges for getting away on fishing trips that man ever devised!

IN THE COURSE of a couple of weeks, a number of letters arrive here asking all sorts of questions about hunting and fishing but save us, Hannah, if the toughest one of all didn't come in a few days ago.

"How," asked this tortured correspondent, "do you get away from your wife to go fishing?"

Naturally, this fellow didn't sign his name. This is one of the few times that a newspaperman can respect anonymity. We want no bruised readers.

But how to answer the question? Well, I went to a few fishing friends for advice on this critical matter and here are their solutions. You take your pick as it suits your particular problem.

One fishing buddy says he uses the "sneaky approach." He keeps all his fishing tackle in the trunk of his automobile. When he wants to go fishing he simply goes directly from his office, bypassing his home altogether. This "sneaky" system has definite disadvantages, however, because sooner or later you have to go home to find the little lady standing four-square in the doorway, usually snarling. If you've caught some fish, you're doubly lucky because you can proudly display them and proclaim triumphantly, "I've been fishing." But if you haven't caught any fish, brother, you're in trouble, and how you get out of that situation is your business.

Another friend says he uses the "direct approach." He goes directly home and announces in a firm, authoritative tone: "I'm going fishing!" This is a commendable approach—forthright and honest, but it has a singular disadvantage, according to my friend. It usually fails. His wife always replies: "No, you're not." And that's that.

Then there's another version of the "sneaky system." Under this plan, you go right home after work, but the first time your wife turns her back, you snatch the fishing tackle and take off for the lake. One caution on this one, however. Keep the fishing tackle in a readily accessible place where you can make a quick grab. I'm told that wives quickly wise up to this dodge and often put lawnmowers in front of the door for you to trip over on the way out.

Another friend has had considerable success, he claims, with "the tired husband" approach. When he gets home at night, he drags around the house; limits conversation to a few words; rubs his eyes; sits with chin in hands. This all leads the good wife into the trap of asking, "Tired, dear?" And friend fisherman answers, "I certainly am—very tired. It's been a tough day." Right here you must be careful. Don't leap right into a suggestion that going fishing would help. First, pause a few moments. Then say casually, has though the thought just occurred to you, "You know, I think I'll go fishing. It might relax me." You've now reached the crisis. In all honesty, we must warn you that this system also is fraught with danger. Some clever wives—and have you found any that aren't clever?—will change this system into one of



Most wives will forgive the many hours husbands are away on those fishing trips if the man of the house consistently brings home such strings of bass as shown above—pan cleaned, of course.

complete disaster. They might say, "Well, dear, if you're so tired wouldn't it be more relaxing to have some friends in for a game of bridge?" You're sunk. If this disaster befalls you, abandon the "tired husband system" immediately.

One of the most successful of all systems for getting out of the house for a fishing trip is the "buddy dodge." This is a clever refinement of the "tired husband" approach. Under the "buddy dodge," you first must have a trusted friend who's a fisherman—a friend, incidentally, who is acquainted with your wife. Casually, one day, he says to your wife: "You know, Joe's been working awfully hard . . . looks terribly tired . . . the grind's getting him down." He lets this sink in. "Joe should relax," your buddy says, a tone of dark foreboding in his voice. Then, innocently, he asks your wife: "Is Joe a fisherman?" "Oh, yes, indeed, Joe loves fishing," responds your wife. That's the subtle beginning of the "buddy dodge." "Well," says your friend, "I think I'll drop in on Joe tomorrow—maybe we can go fishing and relax good old Joe." This is really a good system but we must be completely honest with you again and mention its disadvantages, too. Most wives will fall for this occasionally, but not forever. Sooner or later they tumble to it.

After all these so-called "systems" have run their course and failed—as they must eventually—you have one last resort. Go down to the sporting goods store and buy a license for your wife. This gets expensive, but, after all, she can row the boat, catch nightwalkers for you, light your cigars while you're busy casting—all sorts of helpful little things she can do. And, oh, one final caution: That rope you'll find in the stern of the boat. You tie that to the anchor—NOT your wife's ankle.

TEMPTING RECIPE Chive Bream (Bluegill) Fry

- 1½ cup yellow corn meal
- ½ cup white flour
- 2 teaspoons salt
- ¼ teaspoon pepper
- 3 tablespoons butter or shortening
- 1 lemon, quartered

Cut off heads, tails, and fins. Gut. Split down backbone. Wipe off with a damp cloth. Don't wash; you lose the taste.

Sift flour, salt, and pepper into a mixing bowl, and thoroughly mix in the cornmeal. Mince up your chives on a chopping board and rub the fish well over the chopped chives. Now roll your fish in the meal and flour mixture.

Heat your butter or shortening in a skillet and brown the fish about four minutes on each side. Serve it with the rest of the chives and the lemon. Will serve six.

CONSIDERATION

"A man as obeys a law jest because it's a law ain't necessarily a sportsman. But when a man knows the meanin' and purpose of a law an stays within it because of sympathy with that under-standin', he's a sportsman; he knows what he's doin', an why."

by W. O. Nagel



I WAS JUST contemplating the dreary prospect of the second bachelor dinner in a row when the phone rang. "Though you might be gettin a little hungry," Cy Littlebee's voice drawled.

"What you got?" I asked, unashamedly.

"Rabbit pot-roast—with biscuits."

"I'll be right out," I said instantly.

Pot-roast might not be the right name for the rabbit dish Cy makes, but "delicious" certainly is.

He cuts up two cottontails, flours and browns them in an iron skillet in bacon fat. The browned pieces go into an iron pot. Then Cy adds about a quart of water with a dash of cider vinegar, a mere fragment of bayleaf, a slice of onion, salt, and an egg-sized lump of country butter. He simmers this slowly till the meat falls off the bones, then picks out the bones. About a half-hour before supper he stirs in some flour and milk thickening, lets it simmer some more. Just before it's done he splits and butters hot biscuits, then covers them with the mixture of tender, delicately flavored meat and gravy. It's a wonderful dish for a winter's night.

"Main thing," Cy said as he gestured me to the guest's seat away from the hot stove, "is not to flavor too high, an cook er till the gravy's jest between spread an pour."

About thirty minutes later, I waved away Cy's hospitable third helping.

"Not that I couldn't eat a little more," I said. "But I sort of like to quit while it still tastes so good."

Cy shot a look at me from under his grizzled brows as he replenished my coffee cup.

"That ain't no bad idee," he said, passing the pitcher of thick Jersey cream. "You mebbe had somethin else in mind, beside eatin'?"

I brushed a spot of gravy from the red-checked tablecloth. "No, I didn't. But now you mention it, I guess you could say that self-restraint was a good way to hang onto the flavor of a lot of things besides good cooking."

"As Uncle Ott used to say: 'Knowin when to quit is sometimes a sight harder'n knowin when to start.'" Cy nodded, as he stuffed rough-cut into his brier.

He was hanging onto the subject like a turtle to a duckling. I thought. Remembering our last talk, I had a pretty good idea of what was on his mind. But I also knew he'd bring

it out only when he was good and ready. I thought I'd stir him up a bit.

"Sometimes knowing *how* to start and *how* to quit is as important as knowing *when*," I suggested, pushing back from the table and stretching my feet out toward the comfortable warmth of the cookstove.

"Now bring in a 'who' an a 'where,'" he snorted, applying a kitchen match to his pipe, "an danged if you wouldn't sound jest like a newspaper man gettin a story." He puffed a vigorous cloud of smoke across the table. He was still being evasive, so—

"You left out one. The '*what*?' I mean, it's kind of hard to get a story unless you know that, don't you think?" I added pointedly.

Cy grinned acknowledgment of the point as he tossed a gravy-soaked biscuit to the old hound drowsing behind the stove.

"Why," he said mildly, "we was talkin about the same thing—about self-restraint bein a pretty good way to get the best out of a lot of things."

"O. K.," I acknowledged. "That just leaves the 'who,' and I guess I know who 'who' is—sportsmen. But what's self-restraint got to do with sportsmen?"

Cy swung around in his chair as if a deer he'd been waiting for had just stepped out from behind a cedar.

"That rabbit gravy must have been a mite heavy for you," he said, "or you ain't had enough coffee yet, askin a fool question like that. If you'd jest thought afore you'd spoke, you'd knowed that sportsmanship ain't nothin in the world but self-restraint."

"You've got a mighty good point, Cy," I agreed, "but it isn't quite that easy. That's your definition of sportsmanship, but I've heard a lot of farmers call sportsmen, and sportsmanship, something not quite so complimentary. The same term," I argued, "can mean a lot of different things to different people."

"Pends on how you use it," Cy retorted. "Uncle Ott used to say: 'If you call a spade a spade, nobody cares what you shovel with it; but if you're gonna call it a table-fork, people genelly expect you to use it that way.'"

I had to laugh. "O.K., we'll stick to your definition. I like it, anyway. But," and now I swung around to level my finger at him, "if sportsmanship is self-restraint, how are you going to explain your remark, last time we cut wood, that

modern game management has knocked the old-time idea of sportsmanship into a cocked hat? What's modern game management got to do with a hunter or a fisherman exercising self-restraint?"

"That ain't hard to figger either," he retorted. "Look: what was some of them old-time ideas of sportsmanship? Put all the little fish back so they'll grow up to be big ones. Don't never kill a doe nor fawn. Don't never shoot a bird too young to fly good. Make lots of refuges where nobody can hunt. Them's all self-restraintin things, an they ain't a one of them," he emphasized, "as modern game management ain't changed in some way, or knocked out complete."

"You've got to admit, Cy," I said, "that's because game research has proved those things weren't good management—some of them, in fact, are just the opposite." Then I sunk in a needle of my own. "Do you mean to say we shouldn't have told the sportsmen that? That we should have let them go on fooling themselves that what they consider sporting and helpful was really doing any good?"

"I didn't say that," he retorted. "If a man thinks he's doin some good, but really ain't, he ought to be told about it. Telling em that those things wasn't helpin *game and fish* was O.K. But," and here he pointed his finger square between my eyes, "they was helpin sportsman. An when you take away a man's belief in what he thought was helpful, you got to give him somethin as is *really* helpful, in exchange!"

"Now, hold on a minute!" I thought I had him. "That's exactly what we do. A mighty big share of the information we put out, both publications and talks, is telling hunters and fishermen exactly what they can do to help improve their sport."

"An what are them things you tell em?" he shot back. "Plant multiflora rose. Build ponds. Help a farmer make food an cover plots. Get together an sponsor a community fishin lake."

"And what's wrong with that?" I asked, a little heatedly. "Don't you think those things are constructive and helpful?"

"They ain't nothin wrong with them things," Cy came back. "In fact, it ain't jest helpful for sportsmen to do them things, it's plum necessary if they're to get the kind of huntin and fishin they want." He paused to shape his thoughts, and then went on.

"We said that sportsmanship was the exercise of self-restraint!" he emphasized, "An there ain't nothin in them things you recommend, needful as they are, as provides for that kind of exercise!"

Cy had really got hold of a big one this time: we needed a "time-out." As he moved to recharge the big coffeepot, I relaxed a moment. For perhaps the hundredth time, I thought that there's no place to relax like a snug country kitchen. The glow of the lamplight on the aged wood walls, the smell of oakwood smoke as Cy replenished the big stove, the accent of color given by the red-checked tablecloth, the old hound drowsing beside the woodbox, legs twitching in the dream of a long-forgotten trail. I was half-dreaming, too, remembering the days when, wet and weary from a day of wood-cutting, I'd come into another cherry kitchen to thaw out behind the glowing stove. The rattle of sleet against the windowpane intensified the feeling of warm security, and the aroma of hot coffee as Cy poured me a fresh cup brought me back to the present in a quieter, relaxed mood. Thus, when I reopened what could be a pretty controversial subject, I was less inclined to argue than to try to figure out a solution.

"You're thinkin again," Cy said gently. "An I reckon you was a long ways off in your thoughts."

"I was back in the old days, Cy," I admitted, "Back when this old-time exercise of self-restraint really was sportsmanship, and a fine code to live by." I took sugar and cream, stirred reflectively.

"An what did you run onto, back there?" Cy was speaking quietly, too.

"Lots of things. I don't know if I can say it straight. I guess it all adds up to a matter of changing times. Look: in the old days there was lots of wild land, and not so many hunters. Few people cared much about game—how much was killed, or when or how. A man could do about as he pleased, and no one would tell him no."

I looked questioningly at Cy, and he nodded agreement. I took a swallow of coffee and went on.

"It was open, free and easy. Under such circumstances, a man that spared the young and the females and restricted himself to just the large fish or the trophy buck was practicing self-restraint. He didn't have to do it: he did it because he felt, within himself, a need to give the game a break—to preserve a sport he regarded so highly. He wasn't obeying a law; he was upholding an ethic, even if it made him come home empty-handed. That," I wound up, "was sportsmanship."

"That's got it pretty straight," Cy nodded. "Now, how do them things stack up agin modern game management? Special, how do they stack up agin the idea of harvesting game an fish—efficient, like a crop of corn or wheat?"

"The words 'crop' and 'harvest' were borrowed from agriculture, to show the close relationship between farming and wildlife. They're used to explain in familiar terms the principle of putting the surplus production of game to use, instead of letting it go to waste. Maybe it wasn't such a good idea; certainly they have been over-used." I held out my cup for a refill, took a swallow and went on.

"But even if the words are doubtful, the principle is not. The old idea, to increase fish and game by saving it, was often very harmful to game and didn't help outdoor sports a bit. Look what this 'sportsmanlike' sentiment against shooting does and fawns has done to the deer in some northern states: they're starving by the thousands, because of the strong sentiment against shooting the surplus deer produced every year, regardless of age or sex." Thinking about that mess always gets me heated up, so I stopped to cool down a bit.

"Mebbe you might say," Cy suggested, "as most any kind of wildlife that gets too plentiful can be a big nuisance—to itself, an to other wildlife."

"Even to people!" I reminded him. "Remember the big pheasant boom in North Dakota in the early 40's? Hunters thought it was wonderful, but the farmers didn't!"

"Take it close to home," Cy said. "Take fishin: we've found out that releasin little fish you've caught is often the worse thing you can do: after while you get so many little fish there ain't food enough for all of em, and none of em grows up."

"Or take the idea of considering it highly sporting to chase a fox, but very unsporting to kill him," I went on. "That's fine for the fox-hunters, but it can get very rough on the farmers—and pretty rough on the foxes, too."

"I've seen foxes get so thick a lot of em got mangle, an some even got rabies," Cy nodded. "There's a case of what people think is good for wildlife is jest what they think is good for people—an it ain't really good for either."

I blinked over that, but I finally got it. Cy went on:

"It ain't hard to see how some old-time ideas of sportsmanship wasn't so good for the game, or even for the people, now that we know different. But you still ain't told me what we can offer sportsmen that is real sportsmanship, an also works out good for wildlife an people?"

"I can think of several things," I admitted, "but some of them are easier to say than to do. Put it this way: What would you say was the biggest difference between now, and the old days—I mean, affecting hunters and fishermen?"

"I'd say that there was a danged sight more of em, and a lot less open land," Cy replied, promptly.

"And that makes the biggest problem—what?"

"Getting along with people—other hunters and fishermen, an people as owns the land."

"I'll go along with that," I nodded. "It brings in a new

element, or enlarges it: maybe the biggest expression of sportsmanship now, the one most needed, is consideration. Consideration for the rights of others."

"An when others is shootin close to you, or mebbe fishin in the same hole, nearby," Cy agreed, "bein fair and courteous takes a lot of self-restraint. Specially, when they don't know much about huntin an fishin, an gum it up for you."

"The old idea of not being a game hog still goes, of course," I went on. "But nowadays, as long as you don't hog somebody else's game or fish, staying within the legal limits pretty well takes care of that."

"A man as obeys a law just because it's a law ain't necessarily a sportsman," Cy argued. "He don't really know why he's doing it. But when a man understands the meanin an purpose of the law an stays within it because of sympathy with that understandin, he's a sportsman: he knows what he's doin, an why."

"Can't expect that of everybody, Cy," I said, "although it's a mighty fine thing when a man takes enough interest in his sport to understand what's back of it. That man is very likely to want to help improve it, too. And we can always use intelligent help!"

"About one cup of coffee left apiece," Cy remarked. "An you ain't said nothin about farmers an sportsmen."

"Well, we said that getting along with people was one of the biggest problems in hunting and fishing now, and that includes people that own the land. We said that consideration for others' rights was the best expression of sportsmanship for modern times. It's the only way to keep those 'No Hunting' signs down, too."

"Farmers has always knowed that," Cy agreed. "An now, with the sportsmen knowin it, too, I can't see but what we're gonna get along a lot better."

"Didn't Uncle Ott have a word for that, Cy?" I got up to put on my overcoat.

"He had a word about keepin up with the times, as might fit in." Cy rose to walk with me to the door. "He used to say 'A man as insists on drivin a horse an buggy, when others is drivin cars, soon finds himself eatin the dust of them that's passin him by.'"

"Sportsmanship," I agreed, "has to go modern or be passed by."

"Which they ain't nothin modern about consideration," Cy grinned, "But mebbe everybody practicin consideration would be something really new!" And I had to admit that, as usual, he had it about right.

WILDLIFE OF YESTERYEAR

(Continued from Page 14)

and new worlds from the Oligocene to the Pleistocene epochs. In their highest stages of development they resembled the present day tigers, but they had a shorter tail and more massive and shorter legs and feet. The most terrifying feature of the extinct animal was the development of the upper canine teeth, which in the most highly developed species protruded seven inches or more below the lower jaw and were shaped like sabers. Some scientists hold that the animal became extinct because the overdeveloped canines outgrew their usefulness and that the animal was unable to open its jaws wide enough to make them effective and that they also became a hindrance in procuring food, also the animal may not have been able to open its mouth wide enough to defend itself and fell prey to lesser animals. The space between the teeth may have allowed only small bits of food and the species could have degenerated because of this over development.

Man-made ecological changes have however changed the pattern of wildlife over the surface of the earth. Today there are five times as many people on our globe as there were 300 years ago. These people have opened up new lands and territory. The lumberman's axe, the bulldozer, dynamite and other gear of progress have conquered the forests, drained

the swamps and marshes and wildlife has retreated into an ever diminishing domain. So the little tragic stories of the dodo, the auk, passenger pigeon and many of the others should carry for some of us a sort of moral lesson interesting, though we fear, sometimes quite useless.

SELECTIVE FISH

(Continued from Page 3)

poisoning it is up to the interested parties to bear the cost of the necessary rotenone since the Louisiana Wild Life and Fisheries commission does not have any such funds available. If the necessary money is raised for the project then the personnel of the Fisheries section undertakes the mapping of the morphometry of the body of water, determines the quantity of rotenone actually needed, and also makes the actual application of the chemical.

To date three bodies of water have been treated with rotenone in a selective poisoning project. These include Cane River Lake, Natchitoches parish, Bayou DeSiard, Ouachita parish, and Audubon Park lagoon, Orleans parish.

Cane River Lake, which has a surface acreage of approximately 1100 acres, was first selective poisoning in the fall of 1955 after it had been determined that a shad spawn had occurred following the attempted total poisoning that summer. At that time approximately two thirds of the lake was treated with 0.1 part per million 5% rotenone. The results of this operation were very beneficial in that a large number of shad were killed and only two game fish were noted killed. In the fall of 1957 this lake was again treated with the cost of the rotenone being borne equally by the Natchitoches parish Police Jury and the Louisiana Wild Life and Fisheries commission. At this time large quantities of shad were killed. The exact results will not be known until samples are taken this summer. However, since this operation numerous reports of improved fishing have been reported to this department.

In Ouachita parish, Bayou DeSiard, approximately 1100 acres, was selective poisoned in 1957 for shad and the expense of the necessary rotenone was met by the voluntary donations of local interested citizens and organizations. Approximately 52 tons of fish were removed from the area following this operation. The success of this operation will not be fully evaluated until rotenone samples are taken this year. However, as with Cane River Lake, reports of increased fishing success have been received from sportsmen.

The third body of water, Audubon Park lagoon, Orleans parish, was much smaller than the two lakes mentioned above. This body of water was only 11.5 surface acres. However, the difference in the depths of various sections and the odd shape of the lake made even distribution of rotenone extremely difficult. The success of this operation as with the two preceding ones will not be fully evaluated until this year. Here again we have received reports of increased fishing success.

In reading the foregoing reports on lakes which have received this treatment it immediately becomes evident that it would be extremely advantageous to have a creel census conducted on at least some of the lakes prior to and after such a project. To date such an undertaking has been impossible due to the cost of such a census and the lack of funds available. The information from such a census would be the only accurate means of determining whether or not we have really helped the sports fisherman and, if so, to what degree.

Even without the desired evaluation of a creel census the results of these projects have been felt by fishermen enough so that, following our recommendations, sportsmen and organizations have requested that these three lakes be treated again this fall. Along with these lakes it is expected that selective poisoning will be proposed in Lake Bruin, Tensas parish; Davis Lake, Caldwell parish; and, Holloway Pond, Tangipahoa parish.



Experiments with fish like bream and bass have proved that fish in general have a color sense, and some can tell even slight differences in color.

HOW WELL CAN FISH SEE?

By David Gunston

A FISH'S eye is flattened and streamlined, rarely bulging sufficiently to interfere with its slim form offering the minimum resistance to the water. It can be moved from side to side only very slightly, while the iris, although it may be of a wide variety of colors, cannot be reduced or enlarged in size like ours can. As the amount of light under water is seldom if ever enough to cause such contraction, as we find it necessary to have on entering any brilliantly-lit area, fish have no need for a movable iris. Nor have they any need for eyelids, since the water itself constantly keeps the surface of the eye, or cornea, free from dust and dirt. This lack of eyelids causes some people to assume that fish never sleep, as they are never seen with their eyes shut, but all fish sleep regularly.

Further, the lens of a fish eye is not elliptical, as in human beings, but spherical, like a transparent glass marble. It is, in fact, the unpleasant looking white ball which sometimes appears on our plates when a whole fish is served, but in life is perfectly transparent. It has the advantage of a special reflecting membrane behind the retina, which is absent with us, and which serves to increase the amount of light in the image registered when the light is poor, as in

deep or muddy water, or after dark. With this aid a fish may well be able to see an angler at dusk when he cannot see it.

Apart from the main physical differences just mentioned, the eyes of a fish present one most important types, whose lives are centered wholly in the water, and which seldom if ever have any need to look upwards into the sky or outwards into the world at large. Their vision is perfect in its own sphere. But when you come to many other kinds of fish—trout, salmon, bass for just a few examples—a two-fold vision is essential, for they come close to shores and banks, and need to see what is going on on land close by.

Under water, if you have fish-type eyes, things appear much as they do on earth, although visibility is poorer and the light diminishes as you descend. Distance is unknown, but nearby objects appear in focus. It is only when you look up out of the water that the picture changes considerably. This is simply due to refraction, the power of bending light rays that water possesses. Everyone knows how a stick looks bent when it is dipped into water, and the same optical illusion affects the sight of a fish under water. The man standing on the river bank sees a fish in the water, not

where it actually is, but above its true position. Similarly the fish judges the figure on the bank to be where the direct line of sight shows it, which is actually above where it really is. However, it is important to remember that refraction like this does not apply to bait or a float on the surface. Objects such as these are seen without distortion and are judged by the fish correctly in position. It is sometimes said that a fish can, by means of this strange illusion of refraction, see a man before he sees it. This overlooks the truth that the illusion works both ways, and the man would see the fish at the same time. What does sometimes happen is that a fish may be lying under an overhanging bank, and yet by refraction be seen by a fisherman thanks to the bending of the light rays, when if it were only visible in its true position, the man would not see it.

As water is denser than air the surface above it in practice acts as an opaque mirror, due to what is known as total refraction. Thus all a fish really sees is through a circular aperture or window immediately overhead. Owing to further strange bending of light its field of view through this ceiling window is unrestricted, and the whole nearby scene appears panoramically in a circle. Objects are visible but they do not appear in their true size nor in proportion. So objects more or less overhead seem larger to the fish than they really are. Also, visible objects change in size according to the depth at which the fish happens to be: they appear larger when the fish is deep down, and smaller when it is near the surface. This is because the nearer the surface the fish comes, the correspondingly smaller his window on the world, and the necessarily smaller images appearing in the circular field of view.

Fish have eyes that are peculiarly sensitive to any movement, however slight, and the wriggling worm is for them something immediately attractive—provided it keeps wriggling. This strange overhead window system of vision, caused as it is by refraction, acts as described when the water is steady and calm. When the surface is ruffled, fresh difficulties present themselves, since the waves present all manner of new angles to the light. Sometimes the image is brought back to normal, and the fish momentarily sees the man on the bank as he really is in his true position, and a fraction of a second later, the image is even more distorted, and the



Displaying a new Louisiana record black bass is Rufus Williams of Kentwood, a student at Southeastern Louisiana College. The bass, caught in a farm pond in Tangipahoa parish April 12, weighed 11 pounds and four ounces. Last August young Williams caught a ten pound, two ounce bass to set a state record.

figure appears overhead, upside down, or just blurred in a fantastic wobbling dance.

By keeping behind a fish, the angler has his best chance of undetected approach, and by keeping well down on the bank, he stands a good chance of using the power of refraction to conceal his presence. If he stood erect, his image would protrude into the fish's line of sight, and he might lose a catch. A fish will jink to one side when it spots food ahead, by the way, not to get a better view of it, but to be able to judge its distance and position more accurately preparatory to moving forward to take it. With all these limitations and difficulties, a fish really has to take especial care over judging distances and positions of objects seen.

Conclusive experiments with fish like perch, shanny, minnows, trout and black bass have proved that fish in general have a color sense, and some can tell accurately even slight differences in colors, although further evidence is needed in some cases to show that other species are not merely going by varying degree of brilliance in the objects shown them, and not by their colors at all. Tope and skate are quite color-blind, but the use of dyed worms and multi-colored flies for most other fish is fully justified. There seems good reason to believe that most fish can detect the colors of their natural food, whether vegetable or animal.

To sum up, fishermen would do well to remember the characteristic features of fish vision, to realize that approach by bank or shore can never be too stealthy, that an approach from behind is always advisable, and that fish are equipped with complicated but not inefficient eye systems.

FISH STAY IN POOLS

Almost any stream is composed of alternate shallows and pools. In most cases, you will find the fish in the pools, as the current there is slacker and the deep water affords protection.

Usually the most productive part of a pool is the head, where the fast water pours in and slows down. Here is the best place for a fish to pick up food. The next best place in the pool is the foot, where the water speeds up prior to entering another shallow stretch.



Salt water fishing in South Louisiana was at its best in December when this party of four boated 64 redfish, 58 sheepshead together with an assortment of speckled trout and drums while fishing in Bayou Sale out of Cocodrie near Houma. They used market shrimp for bait.

City Youngsters Fish in Auditorium Pool



Hundreds of youngsters were guests of the New Orleans Recreation Department recently at a junior golden gill contest held in the municipal auditorium. Shown above are some of the young anglers and instructors.



Miss Mercedes Veau, supervisor of the Washington playground, above left, is shown with Sandra Bird, a winner.

At left is Terry Comeaux, another winner in the contest.



Magnolia